device driver independently determine the implementation of said second predetermined one of said sub-elements.

**6**. In a computer system utilizing an operating system to perform predetermined software functions and a device driver to perform predetermined hardware interface functions, a controller for performing a predetermined hardware function comprising;

a) a plurality of functionally modular hardware elements that cooperatively interoperate to perform said predetermined hardware function;

b) a hardware register interface supporting the coupling of said controller with said device driver, said hardware register interface providing access to said plurality of functionally modular hardware elements;

c) a modular hardware identifier stored by said controller and accessible by said device driver, said modular hardware identifier storing data respectively identifying predetermined aspects of said plurality of functionally modular hardware elements, whereby said device driver can dynamically adapt to said predetermined aspects of said plurality of said modular hardware elements.

**7**. The controller of claim **6** wherein said plurality of functionally modular hardware elements are programmable through said hardware register interface by said device driver and wherein said device driver dynamically configures software modules coupled to said device driver to support the programming of said plurality of functionally modular hardware elements consistent with said predetermined aspects of said plurality of functionally modular hardware elements as determined from said modular hardware identifier.

**8**. The controller of claim **7** wherein said modular hardware identifier further includes flag data usable by said device driver to tailor the programming of said plurality of functionally modular hardware elements consistent with said predetermined aspects of said plurality of functionally modular hardware elements.

**9**. A dynamically configurable peripheral subsystem comprising:

a) a peripheral controller including:

i) a plurality of sub-elements that cooperatively operate in support of a predetermined controller function, said plurality of sub-elements being provided together on a peripheral adapter coupleable to a peripheral bus of a computer system;

ii) a hardware identifier provided on said peripheral adapter and readable via said peripheral bus, said hardware identifier encoding predetermined respective specific identifications of said sub-elements; and

b) an adaptively configurable device driver coupleable to said peripheral controller to read said hardware identifier, said adaptively configurable device driver including logic to establish and couple a plurality of hardware interface objects into said adaptively configurable device driver in predetermined correspondence with said plurality of sub-elements as determined from said hardware identifier.

**10**. The dynamically configurable peripheral subsystem of claim **9** wherein each of said plurality of sub-elements are programmable and wherein said plurality of hardware interface objects established and coupled to said adaptively configurable device driver provide for the programming of respective ones of said plurality of sub-elements.

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